AUDITOR GENERAL
*Alberta*

# Client Satisfaction Surveys

October, 1998

## Table of Contents


| | Page |
|---|---|
| Introduction | 1 |
| Management of Survey Processes | 2 |
| Criteria Used to Assess Surveys | 2 |
| Survey Design | 3 |
| Survey Execution | 4 |
| Survey Reporting | 6 |

| | |
|---|---|
| Appendix I | Internet Resources Relating to Surveys |
| Appendix II | References on Sampling |
| Appendix III | References on Questionnaire Design |

# Client Satisfaction Surveys

## Introduction

Alberta government organizations frequently use surveys to measure client satisfaction with the quality of services delivered. For example, 8 of the 17 ministries reported client satisfaction survey results in their 1997-98 annual reports, and 12 plan to report survey results in their 1998-99 annual reports. In addition to serving as instruments of accountability, surveys are used internally in setting performance targets and in developing action plans to improve performance.

If client satisfaction surveys are to provide accurate and useful information they must be properly conducted. Surveys must meet several key criteria if government organizations are to realize the maximum benefit from the investment in gathering survey information. These criteria and the objectives of satisfaction surveys are illustrated below.

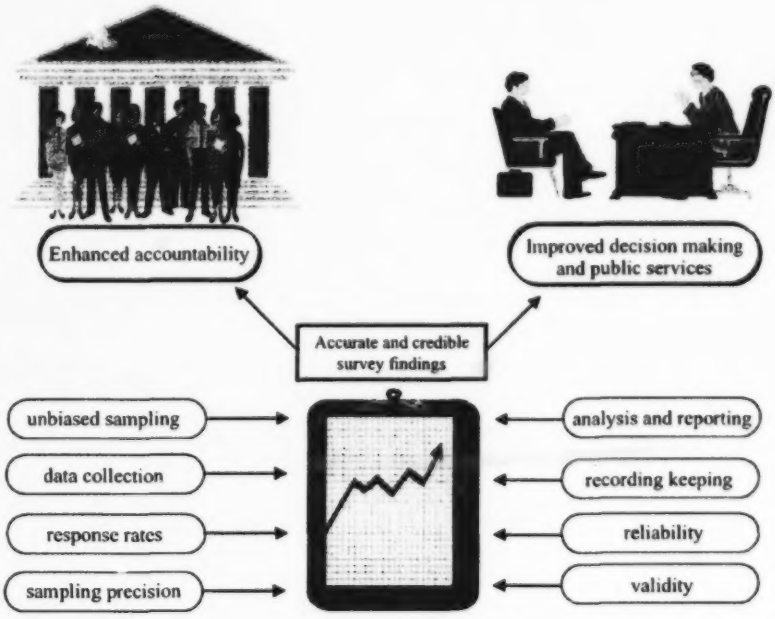


**Figure 1:** *The quality of information for accountability and management decision-making depends on the rigor of the survey process (source: Office of the Auditor General, Western Australia)*

Performance measurement has evolved considerably in the four years since ministry business plans were introduced. Over this period, my Office has reviewed survey processes in various government organizations. In most instances, we have found that organizations possess technical expertise in service delivery. However, we have identified a need for improvement in survey design, execution and reporting processes. As a result a recommendation to improve surveys was included in the 1997-98 Auditor General's Annual report.

This client service document has been prepared to assist government organizations in implementing client satisfaction surveys which are used in customer satisfaction performance measures in external reports such as annual reports. However many of the concepts will also relate to customer satisfaction measures used for internal purposes. This client service document provides some general guidelines concerning best practises in survey research as well as several appendices with additional resources including internet sites and publications relating to survey research.

**Management of survey processes by Government Organizations**

It is the responsibility of government organizations to ensure their survey processes produce accurate and credible information. If a government organization contracts with external parties to carry out survey research, it should ensure that there is sufficient technical expertise within the organization to negotiate and manage such contracts.

Client satisfaction surveys must be used carefully if they are to provide a meaningful measure of performance. For such surveys to provide meaningful information, client satisfaction must be measured in terms of success in achieving ministry goals. There should be a clear relationship between the actions of the organization and their effects on client satisfaction. Client satisfaction measures should be used in conjunction with other measures which focus on the outputs and outcomes of an organizations policies and programs and are designed to achieve goals in the organization's business plan. Client satisfaction measures should be one component of a set of measures which allow readers to form a view on how well management has exercised their stewardship responsibility. They should rarely be used as an exclusive measure of performance for a goal.

**Criteria used to assess surveys**

Surveys must meet several key criteria if government organizations are to realize the maximum benefit from the investment in gathering survey information. Rigor in survey research is critical: when systematic, scientific methods are not used, results are subject to numerous types of sampling and non-sampling errors. Errors cannot be totally eliminated by good research techniques, but they can be minimized. The key criteria used to assess the quality of survey information are validity, freedom from bias, precision and confidence.

- Validity is the extent to which a survey actually measures what it purports to measure. Surveys should have a clear, measurable purpose and be specifically designed to gather all data required for the final analysis. Developing a valid survey for performance reporting purposes requires goals that are clear, specific and measureable.

- Bias or uncertainty arises for various reasons including low response rates, when samples are not selected randomly, or when the survey analysis is flawed. Good survey research techniques can reduce, but not will totally eliminate bias.

- Precision and confidence are inter-related statistical measures of reliability, applicable whenever responses are not received from the entire client population. Precision is a range of values in which the true satisfaction of the client population exists. It is also referred to as the margin of error. Confidence is the probability that the stated range of precision includes the true satisfaction of the client population. For example, the reliability of survey results can be expressed in terms such as "clients are 80% satisfied, with a precision of +/- 5% at a confidence level of 95%".

**The following discussion addresses these criteria as they relate to survey design, execution and reporting. Although this discussion refers to respondent-completed mail surveys, most of the guidelines apply to other methods of data collection such as in-person or telephone interviews.**

**Survey design**

Certain key elements of client satisfaction should be common to all programs offered by a government organization such as a ministry. These may include the quality and value of services, and the competence, responsiveness and courtesy of the service provider's staff. Surveys should test client satisfaction in these common areas to allow performance to be compared and comparable targets to be set across the organization.

Developing clear, and straightforward survey questions is a critical part of the survey process and the following general rules should be followed:

- Questions should not use double negatives, specialized words, abbreviations, acronyms or other jargon.

- Questions should also address only one concept. For example, a question should not ask the respondent to assess "competence and responsiveness", since this may require the respondent to guess which factor to base their response on.

- If there is any chance that a term will be unclear to some respondents, a definition or clarification should be provided.

- Questions should refer to a specific time frame.

- Questions should be concise, generally no longer than 20 – 25 words.

- Do not include loaded and leading questions. For example "Most doctors say that moderate exercise is good for you. Do you agree?" is not a neutrally worded question.

- Questions should only ask for information that is relevant to the objectives of the survey.

When developing survey questions, consider the following guidelines concerning response options:

- Structured response options are generally easier to analyze than open-ended responses. However open-ended responses may be appropriate when the number and diversity of responses is unknown or too great to be listed and providing only a few categories might seriously bias the responses toward those choices,

- When a satisfaction rating scale is used, for example a scale from 1 to 5, each point on the scale should be clearly explained and the difference between any two consecutive points on the scale should be consistent.

- Satisfaction rating scales should be broad enough to capture variations in intensity. It is more difficult to detect statistically significant shifts in satisfaction on a 4 point scale than on a 6 point scale. Generally a scale including at least 5 points will allow for reasonable use of general linear model techniques such as regression. Scales of 5 to 7 points are considered suitable for client satisfaction surveys.

The layout of the survey can have a significant effect on response rates. The survey should be easy to read, uncluttered and aesthetically appealing. Relatively simple questions should be placed at the beginning of the survey, sensitive questions in middle, and overall satisfaction ratings and demographic items at the end. This improves the accuracy of responses by introducing topics before posing detailed or summary questions. Requesting demographic information at the end reduces the tendency for clients to respond in a way that they may feel is expected. Questions which direct respondents to skip ahead, for example "if response is yes, go to Part C", or frequent changes in the types of questions should be kept to a minimum.

The survey should not take more than 30 minutes to complete. Surveys that take longer than a half-hour may cause respondents to rush through, giving inaccurate responses. They may even discourage the client from completing the survey altogether.

Surveys should be pre-tested before being administered. Pre-testing involves giving the survey to a small sample of clients to evaluate the survey instructions, questions, and format. The pre-test should be administered in the same manner as is planned for the main survey. Pre-testing is particularly important which developing a new survey or when major modifications are made to an existing survey. This provides an opportunity to improve the survey design by identifying ambiguous or invalid questions, formats that are confusing, and other potential problems.

**Survey Execution**

The first step in survey execution is to define the client population, including appropriate sub-groups. Clients may consist of other ministries or government entities, the general public, or specific groups such as students, seniors, or health care recipients.

A census is a survey that includes every element of the population. A census is typically used when the population is small, or when detailed information is sought. It is also useful, particularly the first time a survey is carried out to obtain benchmark information. Survey sampling is typically used on larger populations, due to cost and time considerations.

For organizations which provide services to the public, the survey sample should be representative of those who actually use the services. For example, a health care survey weighted according to the age distribution of the general public may be useful in assessing voter opinion, but would not be appropriate for measuring client satisfaction because certain age groups use disproportionately more of these services.

Organizations which provide services to other entities within government may find it useful to survey potential clients and former clients, in addition to current clients. It may be important for these organizations to determine why some entities do not use their services, since this may indicate the need to increase awareness of the services offered, improve service quality, or reduce costs to be competitive.

Where sampling is used, groups or characteristics of interest to the organization should be reflected in the stratification of the sample, in order to accurately report on those results. Samples should be randomly selected from the population or population sub-groups. The desired precision and confidence of results should be determined prior to conducting the survey, since this determines the number of responses required. As a general rule, the reliability of survey results should be expressed using a confidence level of 95%. Ideally, government organizations should also plan to obtain sufficient responses to keep precision within $^{+}/_{-}$ 5% of the reported value. This level of reliability is important for accountability and for trend analysis over time, particularly when measuring small changes.

Response rate is the percentage of clients who complete and return the survey. There is a risk that a low response rate will provide biased and misleading results, as it is common for the opinions of clients who do not respond to differ markedly from those who do. Sample response rates should meet required thresholds for statistical accuracy which may vary depending on the type of survey (i.e. from 25% to 75%).

To increase the response rate, minimize non-response bias, and obtain more accurate responses, the following guidelines should be followed in administering a survey:

- a letter should be sent in advance describing the purpose of the survey and how the data will be used. The letter should also indicate that a summary of results will be provided to all participants after the data is analyzed.

- respondents should be given a point of contact should they have any questions, and should be given the name of the contractor carrying out the survey if the organization is not administering the survey itself.

- respondents should be informed that participation in the survey is voluntary. They should also be assured of the anonymity and confidentiality of their responses. Any limitations on confidentiality should be clearly stated.

- a follow-up reminder to complete the survey can be sent, or non-respondents can be contacted by phone.

- at the completion of the survey process, a summary of results and actions planned to deal with concerns, should be sent to all participants. Clients are more likely to respond if they feel they have an opportunity to influence future services.

**Survey Reporting**

To assist users in their evaluation of results, to help them understand how performance information was collected and compiled, and how results relate to the goals and desired outcomes of the ministry, reported information should include:

- a description of the client population,

- where sampling is used, the sample size, selection method, stratification, survey dates, response rate and any limitations in the survey methodology (e.g. low response rates, non-random sample selection, etc.),

- the precision and confidence level of results,

- a description of the satisfaction scale used in the survey,

- comparison of actual results to past performance and to internal targets and external benchmarks, where appropriate.

# Internet Resources Relating to Surveys

| REFERENCE: | **Minnesota's Report on Customer Satisfaction Surveys** |
|---|---|
| SITE: | GSA's Office of US Government Wide Policy |
| ADDRESS: | http://www.itpolicy.gsa.gov/mkm/pathways/pp04lib.htm |
| SUMMARY OF RESOURCES: | This site includes links to numerous documents relating to performance measurement. It includes the 1995 report prepared by the Minnesota Office of the Legislative Auditor titled "Guidelines for State Agency Customer Satisfaction Surveys". |

| REFERENCE: | **Statistics Canada Resources** |
|---|---|
| SITE: | Statistics Canada |
| ADDRESS: | http://www.statcan.ca/start.html |
| SUMMARY OF RESOURCES: | This site contains links to: Census 1996 data, Daily News, Canadian Statistics, Education Resources, Service Centres, About Statistics Canada, Links to Other Statistical Sites, and Survey Concepts, and definitions and methods. |

| REFERENCE: | **Statistical Links** |
|---|---|
| SITE: | Statistics on the Web |
| ADDRESS: | http://www.execpc.com/~helberg/statistics.html |
| SUMMARY OF RESOURCES: | This site includes numerous links to statistical organizations, statistics courses on the web, online textbooks, publications, and software. |

| REFERENCE: | **Survey and Public Opinion Research** |
|---|---|
| SITE: | American Association for Public Opinion Research |
| ADDRESS: | http://www.aapor.org/best/best.html |
| SUMMARY OF RESOURCES: | This site includes twelve guidelines for survey and public opinion research. The guidelines focus on best practices in survey process conceptualization organization, sampling, questionnaire design, data collection, and data processing and analysis. |

# Internet Resources Relating to Surveys

| REFERENCE: | **Minnesota's Report on Customer Satisfaction Surveys** |
|---|---|
| SITE: | GSA's Office of US Government Wide Policy |
| ADDRESS: | http://www.itpolicy.gsa.gov/mkm/pathways/pp04lib.htm |
| SUMMARY OF RESOURCES: | This site includes links to numerous documents relating to performance measurement. It includes the 1995 report prepared by the Minnesota Office of the Legislative Auditor titled "Guidelines for State Agency Customer Satisfaction Surveys". |

| REFERENCE: | **Statistics Canada Resources** |
|---|---|
| SITE: | Statistics Canada |
| ADDRESS: | http://www.statcan.ca/start.html |
| SUMMARY OF RESOURCES: | This site contains links to: Census 1996 data, Daily News, Canadian Statistics, Education Resources, Service Centres, About Statistics Canada, Links to Other Statistical Sites, and Survey Concepts, and definitions and methods. |

| REFERENCE: | **Statistical Links** |
|---|---|
| SITE: | Statistics on the Web |
| ADDRESS: | http://www.execpc.com/~helberg/statistics.html |
| SUMMARY OF RESOURCES: | This site includes numerous links to statistical organizations, statistics courses on the web, online textbooks, publications, and software. |

| REFERENCE: | **Survey and Public Opinion Research** |
|---|---|
| SITE: | American Association for Public Opinion Research |
| ADDRESS: | http://www.aapor.org/best/best.html |
| SUMMARY OF RESOURCES: | This site includes twelve guidelines for survey and public opinion research. The guidelines focus on best practices in survey process conceptualization organization, sampling, questionnaire design, data collection, and data processing and analysis. |

| REFERENCE: | **Survey Tips** |
|---|---|
| SITE: | GSA's Office of US Government Wide Policy |
| ADDRESS: | http://www.itpolicy.gsa.gov/mkm/pathways/survey/scoop.htm |
| SUMMARY OF RESOURCES: | This site includes 15 chapters of tips concerning surveys. It includes guidelines for writing good survey items, survey design; survey reliability and validity, survey nonresponse, sources of bias and survey ethics.. |

| REFERENCE: | **Surveys and Sampling Guidelines** |
|---|---|
| SITE: | Deakin University (Australia) |
| ADDRESS: | http://www.dealin.edu.au/~agoodman/sci101.htm |
| SUMMARY OF RESOURCES: | This site is an introductory guide to data collection and analysis. It includes sections on surveys and sampling, survey techniques, processing and summarizing survey data, and presentation of data. |

| REFERENCE: | **Western Australia Survey Assessment** |
|---|---|
| SITE: | Auditor General of Western Australia |
| ADDRESS: | http://www.audit.gov.au./reports/report.98_5html |
| SUMMARY OF RESOURCES: | This report entitled "Listen and Learn" assesses the rigor with which seven Western Australian public sector agencies have conducted selected customer satisfaction surveys. This site provides a brief summary of the findings of the study, as well as an electronic copy of the complete document. The report includes appendices which deal with conducting surveys, judging the quality of survey research, and sample size requirements. |

| REFERENCE: | **Survey Tips** |
|---|---|
| SITE: | GSA's Office of US Government Wide Policy |
| ADDRESS: | http://www.itpolicy.gsa.gov/mkm/pathways/survey/scoop.htm |
| SUMMARY OF RESOURCES: | This site includes 15 chapters of tips concerning surveys. It includes guidelines for writing good survey items, survey design; survey reliability and validity, survey nonresponse, sources of bias and survey ethics.. |

| REFERENCE: | **Surveys and Sampling Guidelines** |
|---|---|
| SITE: | Deakin University (Australia) |
| ADDRESS: | http://www.deakin.edu.au/~agoodman/sci101.htm |
| SUMMARY OF RESOURCES: | This site is an introductory guide to data collection and analysis. It includes sections on surveys and sampling, survey techniques, processing and summarizing survey data, and presentation of data. |

| REFERENCE: | **Western Australia Survey Assessment** |
|---|---|
| SITE: | Auditor General of Western Australia |
| ADDRESS: | http://www.audit.gov.au./reports/report.98_5html |
| SUMMARY OF RESOURCES: | This report entitled "Listen and Learn" assesses the rigor with which seven Western Australian public sector agencies have conducted selected customer satisfaction surveys. This site provides a brief summary of the findings of the study, as well as an electronic copy of the complete document. The report includes appendices which deal with conducting surveys, judging the quality of survey research, and sample size requirements. |

# REFERENCES ON SAMPLING

Cochran, W.G. (1963), Sampling Techniques, John Wiley and Sons Inc., New York.

Fowler, Floyd J. (1984), Survey Research Methods, Vol. 1, Sage Publications, Beverly Hills, California.

Groves, Robert M. and Robert L. Kahn (1979), Surveys by Telephone: A National Comparison with Personal Interviews, Academic Press, New York.

Groves, R.M. et al [eds.] (1988), Telephone Survey Methodology, Wiley, New York.

Kalton, Graham (1983), Introduction to Survey Sampling, Sage University Paper series on Quantitative Applications in the Social Sciences, 07-035, Sage Publications, Beverly Hills, California.

Kish, L. (1965), Survey Sampling, John Wiley and Sons, New York.

Rossi, P.H., J.D. Wright and A.B. Anderson [eds.] (1983), Handbook of Survey Research, Academic Press, New York.

Satin, Alvin and Wilma Shastry (1983), Survey Sampling: A Non-mathematical Guide, Statistics Canada, Ottawa (Catalogue no. 12-602E).

Stuart, Alan (1976), The Ideas of Sampling, Charles Griffin and Co. Ltd., London.

Sudman, Seymour (1984), Applied Sampling, 3rd Edition, Academic Press, New York.

Warwick, D.P. and C.A. Lininger (1975), The Sample Survey: Theory and Practice, McGraw-Hill Book Company, New York.

# REFERENCES ON QUESTIONNAIRE DESIGN

Belson, W.A. (1981), The Design and Understanding of Survey Questions, Gower, Aldershot, England.

Biemer, P.P., R.M. Groves, L.E. Lyberg, N.A. Mathiowetz and S. Sudman [eds.] (1991), Measurement Errors in Surveys, John Wiley & Sons, Inc., New York.

Bradburn N., S. Sudman and Associates (1979), Improving Interview Method and Questionnaire Design, Jossey-Bass Inc. Publishers, San Francisco.

Converse, Jean M. and Stanley Presser (1986), Survey Questions: Handcrafting the Standardized Questionnaire, Sage University Paper series on Quantitative Applications in the Social Sciences, 07-063, Sage Publications, Beverly Hills, California.

DeMaio, T.J. [eds.] (1983), Approaches to Developing Questionnaires, Statistical Policy Working Paper 10, Office of Management and Budget, Washington, D.C.

Dillman, D.A. (1978), Mail and Telephone Surveys: The Total Design Method, Wiley, New York.

Groves, R.M. and R.L. Kahn (1979), Surveys by Telephone: A National Comparison with Personal Interviews, Academic Press, New York.

Oppenheim, A.N. (1966), Questionnaire Design and Attitude Measurement, Basic Books, New York.

Payne, S.L. (1951), The Art of Asking Questions, Princeton University Press, Princeton, N.J.

Platek, R., F.K. Pierre-Pierre and P. Stevens (1985), Development and Design of Survey Questionnaires, Statistics Canada, Ottawa (Catalogue no. 12-519E).